REMARKS

The following remarks and arguments are in response to the Office Action mailed on February 2, 2011 ("Office Action") for the subject application.

In the Office Action, pending claims 1-18 stand rejected under 35 U.S.C. §103(a) as unpatentable over Uchihachi (US 6,535,639) in view of Crinon (US 6,331,859).

In this Response, claims 1, 6, 8, 13 and 16 are amended. No claims are added or cancelled. Accordingly, the pending claims in the application are 1-18.

The Office Action of February 2, 2011 has been carefully examined by the Applicant. The following are the Applicant's remarks regarding the rejections made in the Office Action.

Claim Rejections - 35 U.S.C. §103

In the Office Action, claims 1-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Uchihachi in view of Crinon. Claims 1, 8, 13 and 16 are independent claims and will be discussed first, followed by a discussion of the dependent claims.

Claim 1

The Applicant respectfully traverses the rejection of claim 1, but amends claim 1 without prejudice for clarification purposes. Amended claim 1 recites:

> "An automatic video summarizer comprising:
> an input unit for receiving a video source to be summarized and a desired summarization time from a user;
> an importance measurement module for generating importance degrees according to category characteristics of the video and a purpose of desired summary; and
> a video summarization generation module for applying shot information and an importance value to a characteristic support vector algorithm, and generating video summary;
> wherein the video summarization generation module comprises a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user."

One advantage of a video summarization generation module that comprises "...a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user" is to produce a more effective video summary by allowing the user to

specify a time range in the video abridging process.

Uchihachi and Crinon do not disclose, either alone or in combination, the limitations of claim 1.

Uchihachi relates to automatic video summarization using a measure of **shot importance and a frame packing method**. Uchihachi discloses that a **measure of importance** is calculated **for segmented parts** of a video. The segmented parts are **determined** by segmenting the video into component shots and then merging by iteration the component **shots based on similarity or other factors**. Segmentation may also be determined by **clustering frames of the video**, and **creating segments from the same cluster ID**. A thresholding process is applied to the importance score to provide a predetermined number or an appropriate number generated on the fly of shots or segments to be represented by frames. (See Uchihachi: Abstract; Emphasis added).

Uchihachi does not disclose, teach or suggest that "…the video summarization generation module comprises a scalability processing module for **receiving the summarization time information from the user**, **repeatedly performing a scalability process**, and generating a video summary **having a time range desired by the user**" as recited in claim 1. (Emphasis added). Rather, Uchihachi teaches generating *a video summary by selecting the most important segments and generating representative frames for the selected segments* and *that [t]he measure of importance is calculated based on a normalized weight of each segment and on length and rarity of each shot/segmented part*. (See Uchihachi: Abstract; Emphasis added). In describing generating the video summary, Uchihachi does not suggest receiving "…summarization time information from the user" or generating "…a video summary having a time range desired by the user" as recited in claim 1. Therefore, Uchihachi does not disclose, teach or suggest the limitations of claim 1.

Crinon relates to a video skimming system utilizing a vector rank filter. Crinon discloses that the consecutive frames of a digital video sequence can be represented as feature vectors which are successively accumulated in a set of vectors. The distortion of the set by the addition of each successive vector or the cumulative distance from each successive vector to all other vectors in the set is determined by a vector rank filter. Each frame in a video segment can be ranked according to its relative similarity to the other frames of the set by applying the vector rank filter to the feature vectors representing the video frames. (See Crinon: Abstract; Emphasis

added).

Crinon does not disclose, teach or suggest that "...the video summarization generation module comprises **a scalability processing module** for **receiving the summarization time information from the user, repeatedly performing a scalability process**, and generating a video summary **having a time range desired by the user**" as recited in claim 1. (Emphasis added). Rather, Crinon teaches that to *produce a summary of a video sequence which is most representative of the content of the sequence, frames are chosen that correspond to vectors that are the least distant to or produce the least distortion of the set of vectors representing the segment*. (See Crinon: Abstract; Emphasis added). In describing producing a summary of a video sequence, Crinon does not suggest "...receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user" as recited in claim 1. Therefore, Crinon does not disclose, teach or suggest the limitations of claim 1.

Since neither Uchihachi nor Crinon, either alone or in combination, disclose, teach or suggest all of the limitations in claim 1, claim 1 is not obvious in view of Uchihachi and Crinon and is allowable.

Claims 8, 13 and 16

Independent claims 8, 13 and 16 recite features similar to claim 1, and are therefore allowable over Uchihachi and Crinon for at least the same reasons as claim 1.

Claims 2-7, 9-12, 14-15 and 17-18

Claims 2-7, 9-12, 14-15 and 17-18 depend from allowable independent claims 1, 8, 13 and 16, respectively, and are allowable for at least the same reasons as their corresponding independent claim.

CONCLUSION

Claims 1-18 are in condition for allowance. Accordingly, withdrawal of the rejections and allowance of the claims are respectfully requested.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136 (a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this correspondence is being deposited electronically with the United States Patent and Trademark Office on May 11, 2011 (Date of Transmission) Aza Chinaryan (Name of Person Transmitting) /Aza Chinaryan/ (Signature)	Respectfully submitted, /Abhay Kulkarni/ Abhay Kulkarni Attorney for the Applicant Reg. No. 66,017 **LADAS & PARRY, LLP** 5670 Wilshire Boulevard Suite 2100 Los Angeles, California 90036 (323) 934-2300 voice (323) 934-0202 facsimile